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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/384,108 | 08/27/1999 | MICHAEL ANTHONY DOYLE | T8464929US | 7387 |

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GOWLING STRATHY & HENDERSON
SUITE 4900
COMMERCE COURT WEST
TORONTO,
CANADA

EXAMINER

SHAH, CHIRAG G

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/384,108

Applicant(s)

DOYLE ET AL.

Examiner

Chirag G Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 3 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 7, ~~10, 14~~^{13, 14}, and ~~16, 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander (U.S. Patent No. 6,272,120) in view of Meier (U.S. Patent No. 6,046,992).~~

Referring to claims ~~1, 7, 10, 12, 13, 18~~^{1, 7, 13, 14} and ~~19~~^{16, 17}, Alexander discloses in columns 13 and 14, a multi-radio bridge comprising a process for controlling the operations of the multi-radio bridge, a single routing table coupled to the processor, at least one antenna, a first and a second radio device wherein radio device can be a frequency hopping radio device or direct sequencing device, with roaming capability and comprising of a wired or a wireless interface. Alexander fails to disclose a bridge controller for controlling data traffic between the wired network and the first and second type of wireless device. Meier discloses in column 8 line 45 to column 9 lines 20 of a controller device, which contains a terminal nodes and a bridge. The bridge node is the root node if controller is functioning as the root bridge. Since a terminal device contains a terminal node, it must have a network interface function with wired or wireless node connections. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Alexander's invention to include Meier's invention in order to manage and control data traffic between wired and wireless devices.

Referring to claims 2, 5, ~~11~~, 14, and ~~17~~, Alexander does teach in column 5 lines 23 to column 6 lines 23 that the first type radio, an access point may comprise a first radio coverage area and the second radio, a second access point has a different coverage area while bridge apparatuses are distributed to cover a predetermined area with radio coverage of the bridge apparatuses as in claims. Alexander, however fails to explicitly disclose that each wireless device is assigned with an address and the controller functions in the first and the second modes in accordance with the address included. Meier teaches in column 11 lines 1 to column 12 lines 9, that each node has a unique long address, which is programmed into the node at the factory and the long address is used only to obtain a short address from the root node. A single controller may be designated as the root and may negotiate to determine which node is the root. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Alexander's invention to include Meier's teaching of the controller's addressing functions between the first and the second modes of wireless devices.

3. Claims 6, 8, 9, and ~~20~~ rejected under 35 U.S.C. 103(A) as being unpatentable over Alexander (U.S. Patent No. 6,272,120) in view of Warren (U.S. Patent No. 5,912,921).

Referring to claims 6, 8, 9, and ~~20~~, Alexander discloses in columns 13 and 14, a multi-radio bridge comprising a process for controlling the operations of the multi-radio bridge, a single routing table coupled to the processor, at least one antenna, a first and a second radio device wherein radio device can be a frequency hopping radio device or direct sequencing device, with roaming capability and comprising of a wired or a wireless interface. Alexander fails to disclose that the first and the second type radio in accordance with the IEEE 802.11

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specification. Warren teaches of a method for operating a wireless local area network, and discloses in column 7 lines 40-65, wireless devices may reserve a frequency for a predetermined time interval. The IEEE 802.11 standard can be used for a channel reservation mechanism including a request-to-send/clear-to-send system ("RTS/CTS"). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the IEEE 802.11 standard for wireless radio devices applied in Alexander's invention as revealed in Warren's invention.

4. Claims 4 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander as applied to claim 1, 2, 5, 7, 10-14 and 16-19 above, and further in view of Cheung (U.S. Patent No. 5,901,362).

Referring to claims 4 and 16, Alexander teaches in figure 2, that information is transmitted between various devices in the communication system preferably in the form of packets using Spread Spectrum wireless communication techniques. Alexander fails to disclose that wireless devices includes wireless protocol information which indicates a wireless protocol used for communicating the data, and the data sent from the wired network includes wired protocol information which indicates a wired protocol used for communication data over the wired network including a protocol converter. Cheung teaches of an internetworking node that acts for all wireless nodes associated to it in relaying messages between wireless nodes or between a wired Local Area Network (LAN) and the wireless nodes. Cheung discloses in claim 15, a method of sending data message via a wired LAN adapter and receiving data from other wired nodes along the wired LAN that is capable of interconverting such data between a format

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suited to be sent or received by wired LAN adapter whereby internetworking node can receive data from wired LAN and transmit it by wireless communication and can also receive data by wireless communication and transmit it along the wired LAN. Hence, protocol conversion between wired and wireless is being executed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include protocol conversion as taught by Cheung in Alexander's invention to clearly distinguish wired data from wireless data.

Allowable Subject Matter

5. Claims 3 and 15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)305-3988, (for formal communications intended for entry)

Or:

(703)305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 7:30 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 301-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cgs

June 14, 2002


Ajit Patel
Primary Examiner